

TOXONOMIC NOTES ON THE YPONOMEUTID GENERA  
*PSYCHROMNESTRA* AND *MACROPHANTA*  
 (LEPIDOPTERA: YPONOMEUTIDAE)

SIGERU MORIUTI

Entomological Laboratory, College of Agriculture, University of Osaka Prefecture, Sakai

Recently I had an opportunity of studying the specimens of *Psychromnestra isoniphas* Meyrick and *Macrophanta aulosema* Meyrick by the courtesy of Drs. Klaus Sattler and P. E. S. Whalley, to whom I am much indebted for allowing me to examine them in the collection of the British Museum (Natural History). The two species are the type-species of the genera and occur in India. Close examination of the specimens of the two revealed that the genus *Psychromnestra* Meyrick is closely related to *Ypsolophus* Fabricius and its allies, and that the genus *Macrophanta* Mayrick falls as a synonym of *Swammerdamia* Hübner.

***Psychromnestra* Meyrick**

*Psychromnestra* Meyrick, 1924, p. 88. —Fletcher, 1929, p. 190. Type-species: *Psychromnestra isoniphas* Meyrick, 1924, by original designation.

The genitalia are illustrated for the first time.

Male genitalia (fig. 2) : Uncus undeveloped. Socius stout, dilated posteriorly. Tuba analia weakly sclerotized on ventral surface. Anellus large, tube-like, densely clothed with microscopic teeth, mixed with some microscopic spines. Gnathos with slender arm, not forming a ventral plate. Valva simple, almost parallel-sided, the distal corner being armed with several small tooth-like spines; sacculus scarcely defined. Vinculum large, Y-shaped. Aedeagus longer than valva; cornutus an elongate-oval sclerotized plate with several denticles. Coremata present.

Female genitalia (fig. 3): Papilla analis narrow. Intersegmental membrane between papilla analis and 8th abdominal segment long. Apophysis posterioris very long, much longer than apophysis anterioris, the latter being brached. Lamella postvaginalis moderately sclerotized. Ostium caudally produced into a distinct, tongue-shaped, strongly sclerotized process. Bursa copulatrix rather small; antrum sclerotized, with a deep median slit; ductus bursae with the posterior 2/3 weakly sclerotized, compactly studded with minute subconical teeth, and the anterior 1/3 membranous, densely studded with very minute subconical teeth; corpus brusae oval, membranous; signum a small sclerotized plate; inception of ductus seminalis between antrum and ductus bursae.

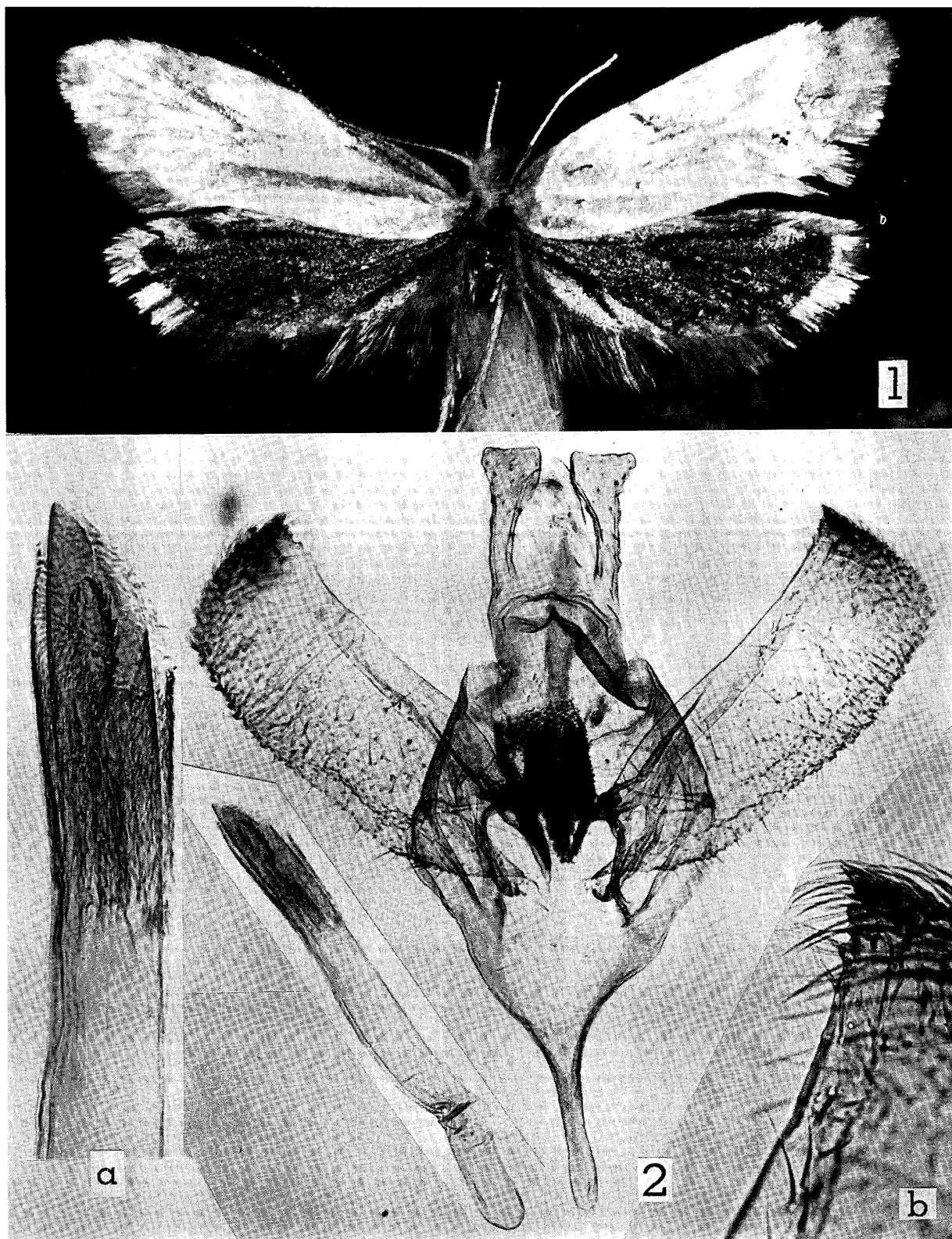
Abdomen without spines on tergite.

Remarks: This genus is closely related to *Ypsolophus* Fabricius and the allied genera (e.g., *Rhabdocosma* Meyrick and *Phrealcia* Chrétien) in having the long-stalked veins Rs and M<sub>1</sub> in the hindwing, but may be easily distinguished from them, in the male genitalia, by the stout saccus, by the gnathos without the ventral plate, by the large vinculum and by the cornutus being one sclerotized plate, and, in the female, by the ostium with a distinct caudal process.

This genus was erected by Meyrick (1924) for three Indian species, namely, *Psychromnestra isoniphas* Meyrick (type-species of the genus), *P. phaeothicta* Meyrick (1924, p. 89) and *P. hebaea* Meyrick (1924, p. 89). I have seen no specimens of *phaeothicta* and *hebaea*; both species were originally described from a female specimen, taken at Muktesar, Kumaon.

***Psychromnestra isoniphas* Meyrick (Figs. 1—3)**

*Psychromnestra isoniphas* Meyrick, 1924, p. 88—89. —Meyrick, 1932, p. 340. —Fletcher, 1933, p. 64.



Figs. 1—2. *Psychromnestra isoniphas* Meyrick: (1) ♂; (2) ♂ genitalia: (a) apical portion of aedeagus; (b) distal portion of valva.

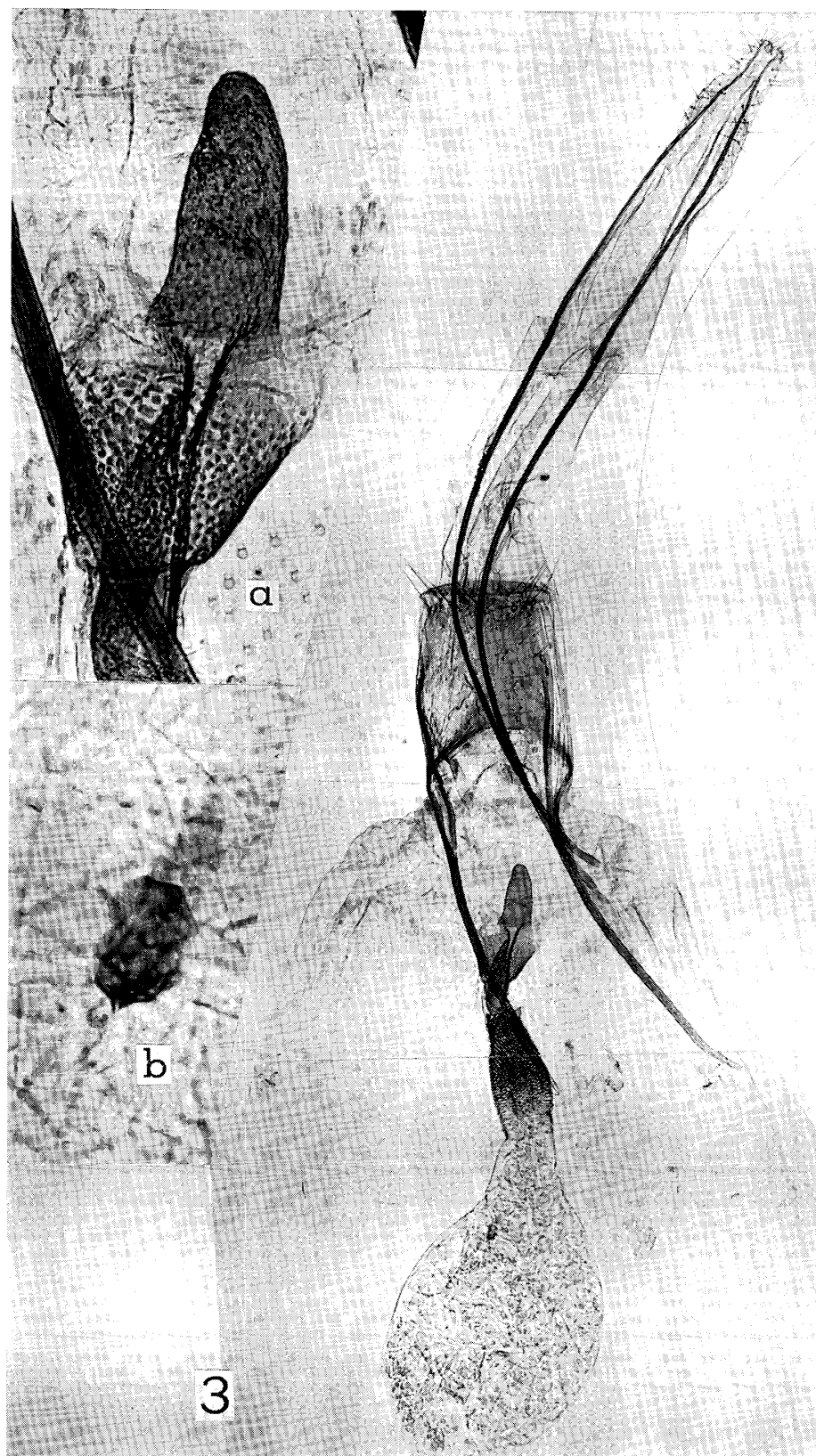


Fig. 3. *Psychromnestra isoniphas* Meyrick, ♀ genitalia: (a) ostium; (b) signum.

Male genitalia (fig. 2): As described for the genus.

Female genitalia (fig. 3): As described for the genus. Signum with a small anterior point.

Type: Probably lost.

Type-locality: Gulmarg, Kashmir, India.

Specimens examined: 1♂, "Kashmir/Killanmarg/10500 ft./26. VII. 31/Fletcher Coll.," "BM. Genitalia slide 19493 ♂." 1♀, "at light/Kashmir/Gulmarg/28. VII. 31/Fletcher Coll.," "BM. Genitalia slide 19494 ♀."

Distribution: India (Kashmir).

Host-plant: Fletcher (1933, p. 64) wrote on the biology: "In Gulmarg moths were beaten from *Lonicera orientalis*, of which leaves were rolled in June by a larva (presumably of this species) which I failed to rear, and an empty pupa, enclosed in a network cocoon, was also found in a rolled leaf in July. At Killanmarg the moths were found associated with another species of *Lonicera*."

Remarks: I have not seen the type of *isoniphas* but am satisfied that specimens in the collection of the British Museum (Natural History) determined by Meyrick as it are correctly named.

### *Swammerdamia* Hübner

*Swammerdamia* Hübner, 1826, p. 425. Type-species: [*Phalaena Tinea pyrella* de Villers, 1789 =] *Tinea cerasiella* Hübner, 18[10—13], by subsequent designation (Fletcher, 1929, p. 212).

*Swammerdamia* Heinemann, 1870, p. 104 (amended spelling for *Swammerdamia*).

*Macrophanta* Meyrick, 1932, p. 339, **n. syn.** Type-species: *Macrophanta aulosema* Meyrick, 1932, by monotypy.

### [*Macrophanta* Meyrick]

*Macrophanta* Meyrick becomes a junior synonym of *Swammerdamia* Hübner, since the type-species of both genera are congeneric and *Swammerdamia* is the earlier name.

### *Swammerdamia aulosema* (Meyrick), n. comb. (Figs. 4—6)

*Macrophanta aulosema* Meyrick, 1932, p. 339.

In the original description of the monotypic genus *Macrophanta*, Meyrick wrote: ".....ocelli posterior; ..... Labial palpi short, slightly curved, subascending, smooth-scaled, second joint rather short, terminal joint longer than second, pointed. Maxillary palpi absent. ....;" on examination of *aulosema*, however, these characters are amended as follows: ocellus absent; labial palpus rather long, the terminal segment being much longer than second one; maxillary palpus minute. Hindwing without a hyaline space beneath cell at base. Hind tibia with median spur at middle.

The genitalia have hitherto been unknown.

Male genitalia (fig. 5): Socius slender. Gnathos with ventral plate large, sclerotized, and armed with spinules in apical area. Valva not armed with any strong setae, the dorsal margin being gently arched in middle; distal corner forming an acute angle; sacculus well defined, rather short, elongate-oval. Saccus rather short, somewhat dilated anteriorly. Aedeagus gently curved, about  $1\frac{5}{7}$  times as long as valva; cornuti composed of two short rows of spinules.

Female genitalia: Not studied.

Type: Described from 15 syntypes, all of which are in the British Museum (Natural History).

Type-locality: Killanmarg, Kashmir, India.

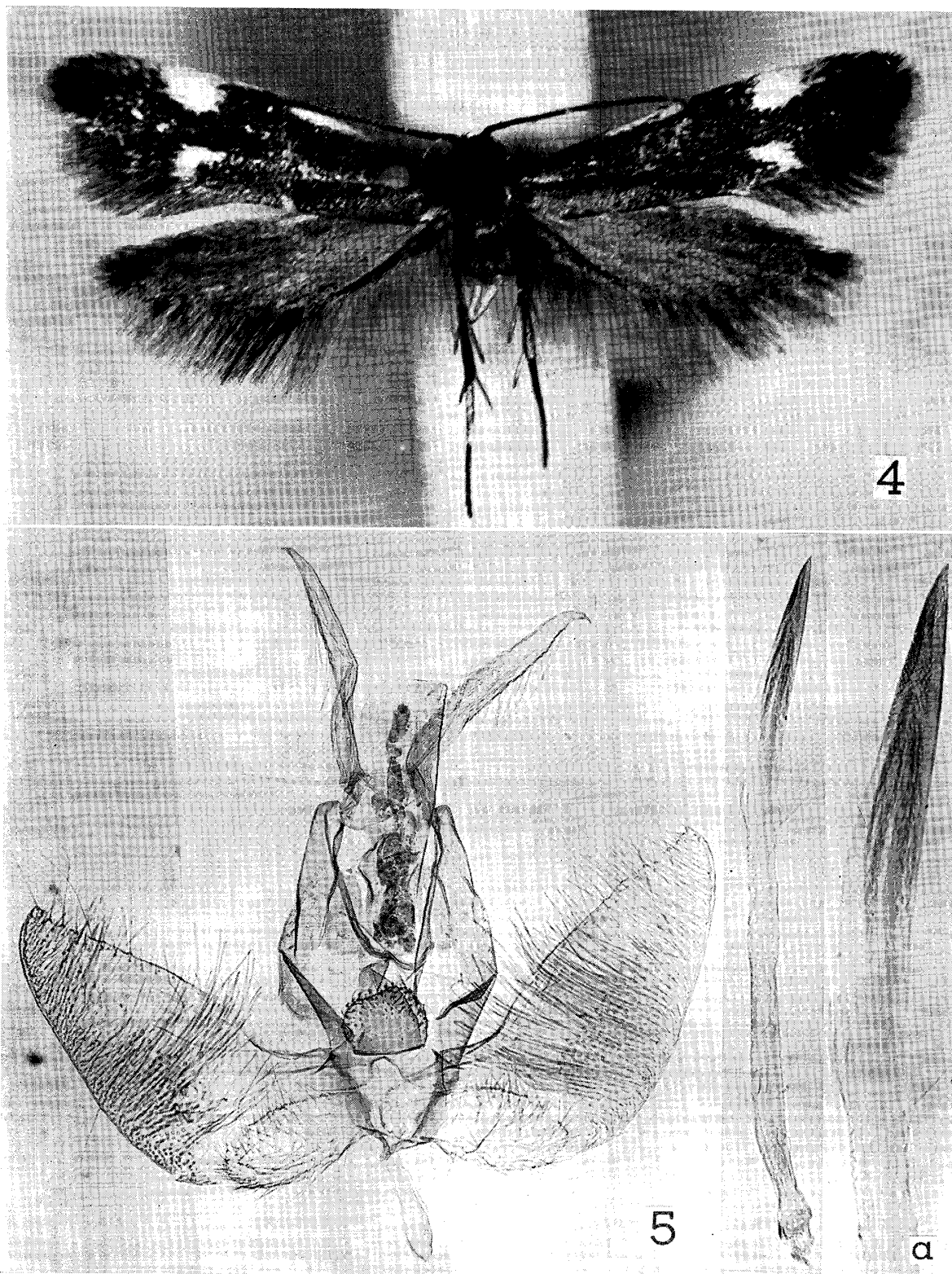
Specimen examined: Syntype 1♂, with following labels: "Kashmir/Killanmarg/10500 ft. /26. VII. 31/Fletcher Coll.," "Macrophanta/aulosema/Meyr. 1932/COTYPE," "Presented by /R.L.E.Ford./B.M. 1949-487.," "BM. Genitalia slide 19479 ♂."

Distribution: India (Kashmir).

Host-plant: Unknown.

Remarks: This species is easily recognized by the dark bronze forewing with distinct white costal and dorsal spots.





Figs. 4—5. *Swammerdamia aulosema* (Meyrick): (4) ♂; (5) ♂ genitalia: (a) apical portion of aedeagus.

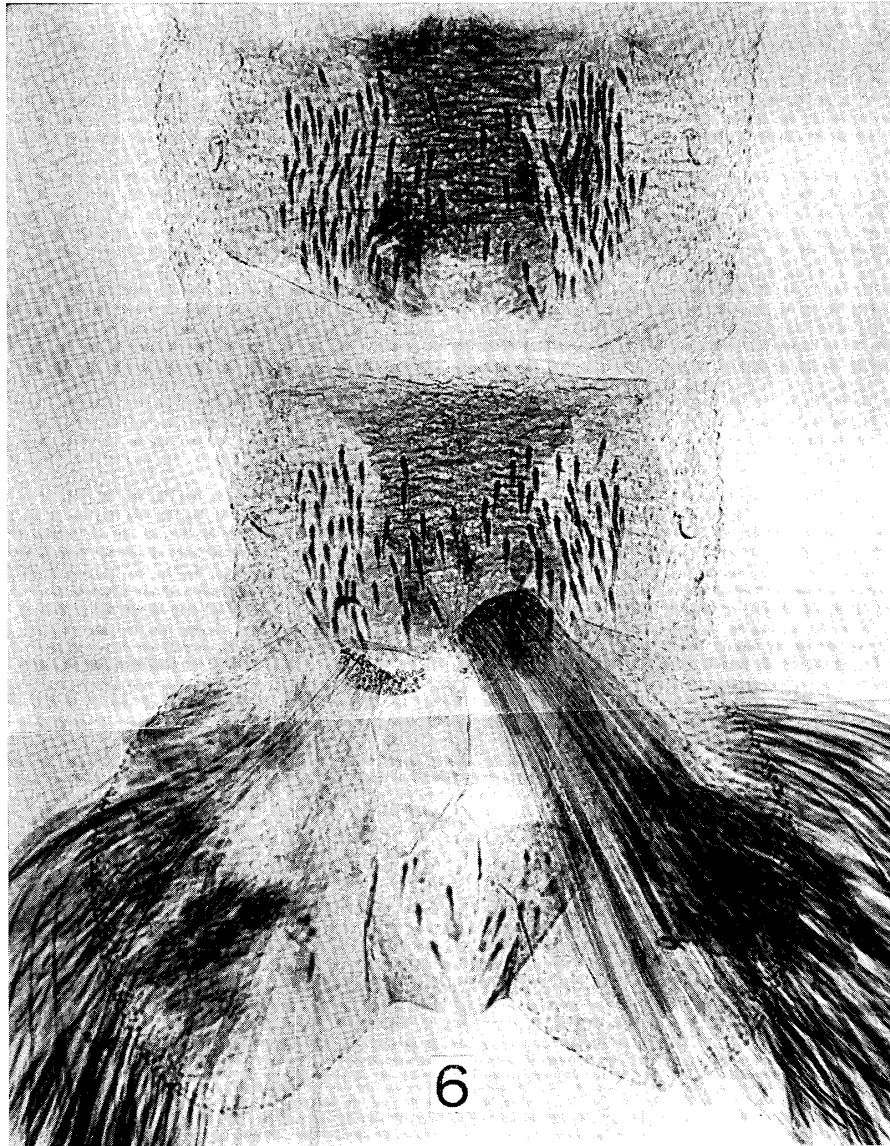


Fig. 6. *Swammerdamia aulosema* (Meyrick), ♂, 6th—8th abdominal segments, showing the presence of tergal spines.

#### References

- Heinemann, H.v. (1870) *Schmetterlinge Deutschlands und der Schweiz*. 2. Abt., 2 (1). C.A. Schwetschke & Sohn, Braunschweig.
- Hübner, J. (1816—1826) *Verzeichniss bekannter Schmettlinge* [sic]. Augsburg.
- Fletcher, T.B. (1929) A List of the Generic Names used for Microlepidoptera. *Mem. Dept. Agr. India. Ent. Ser.* 11: 1—ix + 1—246.
- (1933) *Life-Histories of Indian Microlepidoptera (Second Series). Cosmopterygidae to Neopseustidae*. Imp. Council Agr. Res., Sci. Monogr. No. 4. Delhi.
- Meyrick, E. (1924) *Exotic Microlepidoptera* 3 (3): 65—96. Marlborough.
- (1932) *Exotic Microlepidoptera* 4 (11): 321—352. Marlborough.